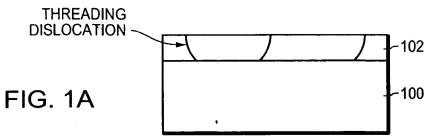
1/3

Attorney for Applicant: Mark L. Beloborodov







1. DEPOSIT LATTICE MISMATCHED LAYER AT LOW T

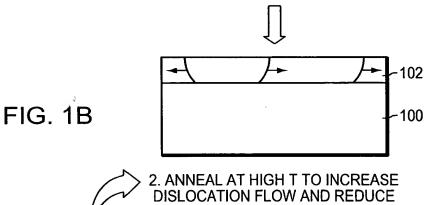
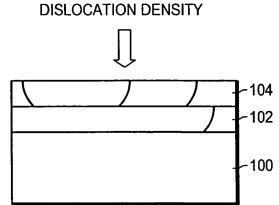




FIG. 1C



3. DEPOSIT SUBSEQUENT LAYER WITH INCREASED LATTICE MISMATCHED AT LOW T

Title: Low Threading Dislocation Density Relaxed
Mismatched Epilayers without High TemperatureGrowth
Inventor: Fitzgerald
Serial No. 09/761,508
Attorney Docket No. ASC-029
EXPRESS MAIL LAREL NO. EV173088346US*
Attorney for Applicant: Mark L. Beloborodov

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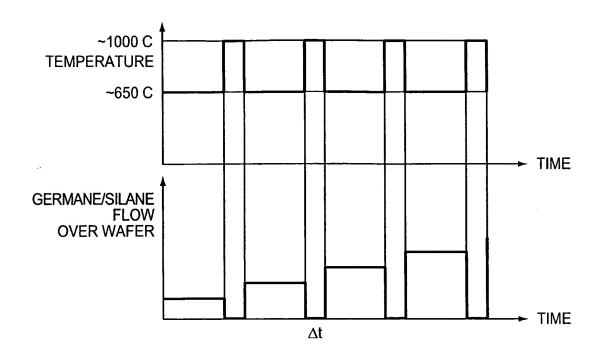


FIG. 2

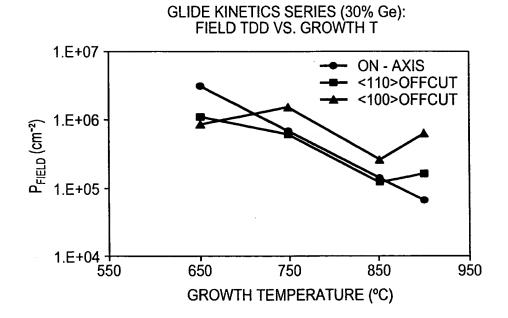


FIG. 3



Title: Low Threading Dislocation Density Relaxed Mismatched Epilayers without High TemperatureGrowth Inventor: Fitzgerald Serial No. 09/761,508
Attorney Docket No. ASC-029
EXPRESS MAIL LABEL NO. EV173088346US
Attorney for Applicant: Mark L. Beloborodov





CHANGE IN EFFECTIVE STRAIN TO FIT DATA

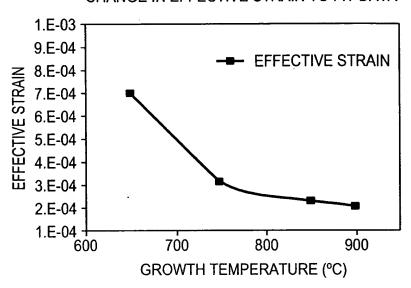


FIG. 4

SAMPLE	TOTAL THREADING DISLOCATION DENSITY (# / cm²)	FIELD THREADING DISLOCATION DENSITY (# / cm²)
20% SiGe ON Si WITH GRADED BUFFER AS GROWN	1.36 x 10 ⁶	1.31 x 10 ⁶
20% SiGe ON Si WITH GRADED BUFFER AFTER A 5 MIN ANNEAL AT 1050 °C	7.25 x 10 ⁵	5.48 x 10 ⁵

FIG. 5